

Boating Safety Report to the Legislature 1998



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I. Introduction

Background

Senate Bill 545 (Rosenthal) required the Director of the California Department of Boating and Waterways to appoint a Boating Safety Advisory Committee (BSAC) whose members would represent a cross-section of the boating community, including two non-voting members at large representing the Boating and Waterways Commission. The BSAC was tasked with making recommendations to enhance vessel operator knowledge and boating safety. The Committee met in public sessions in Los Angeles, San Francisco, and twice in Sacramento to discuss a variety of boating issues, examine published studies, papers and articles, and formulate their recommendations. Their report was presented to the Department on June 30, 1998. Senate Bill 545 also required the Department to prepare a report containing recommendations to enhance boating safety and education and present the report to the Legislature by October 1, 1998. Because the Committee took such a comprehensive look at the spectrum of related issues, and treated all of our own key concerns in their work, we have made their recommendations the core of this report.

In preparing this report, Department staff incorporated not only the work of the BSAC, but also input from the boating community, and our own institutional knowledge. During the compilation of this report, the Department hosted a national conference of boating law administrators at which voluntary versus mandatory education was one of the main topics of discussion, and drew from the experience of counterparts from the 50 states and territories, about half of whom have adopted some form of obligatory education and/or operator certification.

In this report, we present a picture of recreational boating in California, an examination of both existing and contemplated strategies for improving vessel operator knowledge and boating safety, an overview of mandatory education, and our conclusions and recommendations.

Excerpt from Senate Bill 545—Chapter 747, Statutes of 1997

Harbors and Navigation Code

658.6. (a) The department, by October 1, 1998 shall report to the Legislature on its recommendations for enhancement and expansion of boating safety and education. The recommendations shall consider the findings and data in the department's annual California Boating Accident Report and shall focus on strategies to improve vessel-operator knowledge and boating safety. The department's study shall include, but not be limited to, an examination of both voluntary and mandatory education.

(b) In preparing the report required by subdivision (a), the director, by February 1, 1998, shall appoint a Boating Safety Advisory Committee which shall include, but not be limited to, representatives of the Boating and Waterways

Commission; boating law enforcement agencies; the United States Power Squadron; the United States Coast Guard Auxiliary; entities that provide boating education courses; personal watercraft organizations; boat dealers and yacht brokers; boating, sailing, and yachting organizations; owners and operators of public and private marina facilities; boat rental operators; lifeguards and harbor masters; and boating accident victims. The committee shall meet and present recommendations to the department by July 1, 1998. The members of the committee shall serve without compensation and shall not be reimbursed by the state for expenses. The department shall assist the committee in carrying out its duties.

An Overview of Boating and Accidents; 1997 California Boating Safety Report

Boating accidents are the second largest type of transportation accident in the nation, exceeded only by automobile accidents. California ranks second nationally in the number of registered vessels, behind Michigan. Unfortunately, California also ranks second in the number of annual boating accidents, behind Florida.

With our mild climate, boating is a year-round activity in many parts of the State. Boating popularity has grown steadily since the 1960's. In the last ten years, the number of vessels registered in California has increased by more than 183,000 from 711,193 in 1987 to 894,347 in 1997. Exhibit I (below) charts this expansion.

Exhibit I	
Number of Registered Vessels in California	
1960	177,800
1970	420,800
1980	556,000
1990	795,335
1997	894,347

The number of registered personal watercraft (PWC) has grown faster than any other vessel type over the past several years, increasing from 91,000 in 1993 to 154,264 in 1997. *(Personal watercraft are more commonly known as "jet skis," which is a trademark of Kawasaki Motors Corp., USA.)*

The Department of Boating and Waterways' annual report, *California Boating Safety Report for 1997* (in previous years titled, *California Boating Accident Report*) analyzes accident trends and identifies areas of concern to focus on in promoting safer boating. In 1997, there were 925 recreational boating accidents reported in California, an all-time high. These accidents

resulted in 526 injuries and 43 fatalities. The U. S. Coast Guard estimates that less than 10% of boating accidents are reported to state agencies. If this is indeed the case, then there may well have been more than 9,000 boating accidents in California in 1997, the last year for which we have data (see Exhibit II).

Exhibit II 1980-1997 Reportable Boating Accidents in California				
<i>Year</i>	<i>Total Number of Accidents</i>	<i>Total Number of Injuries</i>	<i>Total Number of Fatalities</i>	<i>Total Amount of Property Damage</i>
1980	657	270	112	\$2,039,800
1981	728	319	87	\$3,655,630
1982	696	323	103	\$2,497,000
1983	648	333	95	\$3,713,100
1984	791	341	93	\$2,491,700
1985	869	403	76	\$4,246,400
1986	741	319	68	\$2,645,500
1987	905	325	54	\$3,381,600
1988	745	333	51	\$2,396,100
1989	632	371	43	\$3,669,800
1990	761	416	50	\$3,131,200
1991	750	421	58	\$2,653,800
1992	689	447	59	\$4,360,100
1993	743	434	67	\$2,052,800
1994	709	386	40	\$1,740,300
1995	833	490	52	\$2,241,700
1996	850	537	56	\$2,241,700
1997	925	526	43	\$3,266,800

The 1997 report indicates that:

- The most frequently reported causes of accidents overall were operator inattention (35%), operator inexperience (34%), and excessive speed (33%).
- Personal watercraft accidents, accidents involving youth operators, and the percentage of alcohol-related fatalities all increased between 1996 and 1997. Forty-eight percent of motorboat accident fatalities were alcohol related, up from 39% the previous year.
- PWC accounted for 17% of the vessels registered in California, but were involved in 42% of reported boating accidents and 52% of the injuries, up slightly from 1996. A total of 391 PWC-related accidents involving 276 injuries, 8 fatalities, and \$709,450 in property damage were reported to the Department in 1997.
- Excessive speed was the number one cause of PWC-related accidents, figuring in

54% of accidents, followed by operator inexperience (53%), and operator inattention (50%). (Some accidents had more than one attributable cause.) Of those PWC involved in accidents in 1997, 71% were being used by someone other than the registered owner; 55% were borrowed and 16% were rented.

- In collisions between PWC and vessels other than PWC, the PWC operator was nearly three times as likely to be exclusively at fault. Sixty-nine percent of PWC-related accidents involved collisions with other vessels, most often another PWC. Nearly one-quarter of PWC collisions involved PWC operators performing radical maneuvers just prior to the accidents, such as wake jumping or purposely spraying others. (A new law, effective January 1, 1998, which prohibits wake jumping within 100 feet of another vessel and unsafe operation such as spraying down another vessel or person is expected to reduce these types of accidents.)
- Reported accidents involving youth operators (those under 18 years of age) rose slightly since 1996, from 117 to 120. Operator inexperience was a factor in 68% accidents involving youth operators. In comparison, operator inexperience was a factor in 34% of accidents involving operators of all ages. In collisions with adults, youth operators were more likely to be exclusively at fault. Ninety-three percent of youth operators involved in accidents were operating PWC. Of the youth operators involved in accidents, 57% (80 operators) were under the age of 16, and 19 of those operators were under the age of 12. (The operator age limit was raised from 12 to 16 on January 1, 1998.)

Other significant findings include:

- More than half the fatalities involved open motorboats, followed by PWC (22%).
- 23% of fatalities occurred in July. More than half (51%) occurred on weekends.
- Hazardous weather or water was the most common cause of fatal boating accidents (30%), followed by operator inattention (26%), and excessive speed (23%).
- 41% of reported accidents were collisions with other vessels.
- Nearly all (94%) fatalities occurred in vessels less than 26 feet in length.
- 56% of victims drowned; 67% of those who drowned were not wearing life jackets.
- Capsizing was the most common type of fatal accident (28%), followed by falls overboard and collisions with vessels (19% each).
- Operators in the 31-40 age group were involved in accidents (both non-fatal and fatal) most often, followed by the 21-30 age group.

Boating Trends

The climate of boating is changing. It used to be that boating education took place primarily within families, as parents passed on knowledge to their children, instructing them in sailboat or powerboat operation. In recent years, however, a vast array of new types of boats and equipment has become available to boaters. Personal watercraft, small jet boats, towed inner tubes, kneeboards, wake boards and sailboards are all relatively new to the boating environment. This multitude of choices has expanded the appeal of boating, and a strong economy has made boating more affordable and accessible to a greater number of people. These aspects continue to attract many newcomers to boating, many of whom first become involved as young adults.

Most of these newcomers lack any sort of boating education. In fact, accident data show that operator inexperience is the second most common cause of boating accidents. According to a 1991 survey conducted by the American Red Cross, only about 24% of boaters 16 years and older had taken some type of boating safety course.

Furthermore, this broadened participation and increase in the number of registered vessels have led to increased congestion on our waterways. Not only has the number of vessels risen each year, but the speed at which many of them are capable of operating has increased as well. For example, some late-model two-seat personal watercraft under 10 feet in length can operate at speeds of up to 65 miles per hour. In 1997, excessive speed was the leading cause of personal watercraft-related accidents.

Although the number of annual boating fatalities has been reduced substantially since 1980, the number of injuries requiring treatment beyond first aid jumped 94%, from 270 in 1980 to 526 in 1997, in disproportion to the increase in the number of registered vessels (60%) during the same time period.

II. Existing Strategies for Improving Vessel Operator Knowledge and Boating Safety

Department of Boating and Waterways Programs and Activities

The Department of Boating and Waterways' mission is to provide for public access to California waterways and to provide leadership in promoting the public's right to safe and enjoyable boating. In keeping with this mission, the Department has always placed strong emphasis on educating boaters, and has developed some successful, tailored programs:

Educational Programs for K-12

The Department's aquatic and boating safety education program is mandated by Article 16 of the Education Code to provide education to public schools students. A priority has been placed on elementary-level education in keeping with the Department's philosophy that aquatic and boating safety skills learned at an early age serve to protect students throughout their lives. Curriculum materials for aquatic and boating safety education include lesson plans and suggestions for incorporating each lesson into other disciplines, and are made available to all public schools at no charge. Annual advertisements to all public schools elicit curriculum orders benefiting more than 350,000 students a year.

AquaSMART

This series is divided into three parts, for grades K-2, 3-5, and 6-8. Each program in the *AquaSMART* series covers 10 basic aquatic and boating safety lessons, and consists of a teacher's guide with lesson plans, reproducible student activity sheets and a supplemental video. Parent participation is encouraged by providing lesson summaries to be taken home by students and involving parents in some of the activities.

In the video component of this series, students in grades K-2 are guided through the lessons by three animated characters, Splasher, the Frog; Diver, the Duck; and Surfer the Seal. An *AquaSMART* Team of students and experts covers the 10 lessons for grades 3-5. The 10 lessons for grades 6-8 are presented in the form of an interview with water safety experts. The student activity sheets for grades K-2 and 3-5 are also available in Spanish.

Boating Safely

The *Boating Safely* program was developed for high school students in grades 9-12. *Jet Set*, a supplement to *Boating Safely*, is a booklet addressing personal watercraft safety issues. This supplement was created in response to accident statistics indicating that youth operators of personal watercraft are involved in a large number of accidents. Volunteers from the U.S. Coast Guard Auxiliary offer teaching assistance to the schools to ensure the success of the *Boating Safely* program.

Poster Contest

The annual poster contest, *Safe & Wise Water Ways*, teaches students about boating and water safety. Students in the K-6 grade levels are invited to submit artwork depicting safe boating and aquatic themes. Seven winning posters (one from each grade level) are chosen to be featured on the Department's annual poster calendar. Winners receive education savings bonds donated by private business. This contest turns students into teachers as, through their artwork, they pass on to others the aquatic safety lessons they have learned.

Educational Programs and Outreach Efforts for All Age Groups

Aquatic Center Grant Program

The Department provides grant monies to aquatic centers throughout the State for boating safety educational programs. Grants can be used to purchase equipment for boating education classes or for scholarships to increase access to these classes. This program allows the Department to increase the number of boaters who receive hands-on boating safety training and to enhance the quality of that training.

Aquatic centers are operated by universities, cities, counties, and nonprofit organizations and provide on-the-water boating safety education in kayaking, canoeing, water skiing, power boating, sailing, windsurfing, and personal watercraft operation. These programs target university students, the general public, persons with disabilities and disadvantaged youths.

During the 1996/1997 fiscal year, the Department allocated \$560,000 in grants to 31 aquatic centers, which in turn provided 124,000 individuals with hands-on aquatic and boating education.

Home Study Course

The Department provides approximately 25,000 copies of the *California Boating Safety Course* to the public each year. The course, contained in a free, 64-page booklet boaters can study at home at their own pace, covers State and Federal boating laws, rules of the road, boat handling, required equipment, navigational aids, accident reporting, and special topics.

This course is approved by the National Association of State Boating Law Administrators (NASBLA). NASBLA's membership is comprised of boating law administrators from each state and territory; the Department's director is California's boating law administrator. NASBLA has established Boating Safety Education Minimum Standards, which are used to evaluate courses to ensure that they teach the basic rules of the road, equipment requirements, and key safety-related issues.

The *California Boating Safety Course* is also recognized by the U. S. Coast Guard. The course includes an optional exam with two answer sheets. Once completed, the answer sheet can

be forwarded to the Department for grading. Those who successfully complete the course are awarded Certificates of Completion which are recognized by many insurance companies for discounts on boat insurance policies.

Billboard Campaign

The Department believes that wearing a life jacket is the most important safety precaution a boater can take. To deliver this message in an effort to reduce drowning deaths, the Department initiated a campaign using outdoor billboards in 1996. The billboards were procured through the National Safe Boating Council at minimal cost and placed at strategic locations throughout the State where both boat use and accidents are high.

For 1998, the Department's campaign has grown three-fold to include 36 permanent billboards placed near the State's top ten vessel-accident areas. The program extends through the boating season in California, from mid-May through October. This year's message, *Wear Your Life Jacket! Boat Smart From The Start*, is displayed to the public on fixed billboards 24-hours-a-day, 7-days-a-week. Mobile billboard units are used to reach boaters on remote waterways or where there are no permanent billboards. These ads deliver this safety reminder directly at the "point-of-sale," at marinas and launching ramps.

Educating Through Pamphlets

In 1997, the Department distributed 1.2 million copies of free boating safety literature to the public. The Department's public information unit develops and distributes more than 50 different boating safety publications, which cover a variety of topics. These materials focus on required equipment, known hazards on specific waterways, and safety hints for particular types of aquatic recreation, from canoeing to windsurfing. The unit mails these publications directly to individuals and provides various organizations with materials for distribution. Additionally, the Department of Motor Vehicles mails safety brochures with each vessel registration and renewal.

Educating Through Videos

The Department has an extensive lending library of videos and films, including titles that can be used as stand-alone courses as well as those intended as supplements to classroom instruction. They are available on loan to the public, boating organizations, and law enforcement agencies at no cost. In addition to the video and film library, our AquaSMART video series is also available to borrow at no cost from Blockbuster Video stores throughout the State.

The Department has also produced two videos recently which can be used as stand-alone courses. *Let's Go Boating* is a comprehensive 11-part series on vessel operation. The Department has also produced a personal watercraft safety video, *Ride Safe, Ride Smart*.

Public Service Announcements

Each year, the Department produces and distributes public service announcements to television stations across the State. Last year, in partnership with the U. S. Army Corps of

Engineers, the Department produced and distributed a 30-second public service announcement on personal watercraft safety to more than 100 television stations.

Radio Advertisements

During the 1998 summer boating season, the Department initiated a radio advertisement program. This campaign targeted California's top-ten areas for boating-accidents, broadcasting on 33 stations statewide two 60-second messages, one on the importance of wearing a life jacket while boating, and one on the dangers of mixing alcohol and boating. As with the messages of the billboard campaign, strategically timed and placed radio safety messages reach boaters traveling to and enjoying boating areas. The radio ads reinforce the billboard campaign messages reminding boaters to "Boat Smart From The Start." The campaign also provides the opportunity to partner with radio stations in promotions such as:

- sponsorships at major boating events and shows;
- remotes on various beaches and waterfronts with station prizes awarded for correct answers to safe boating questions;
- interactive phone-line programs to disseminate safe boating tips; and
- community events like a "Child Safety Program" where the Department is offered a booth to display pamphlets, life jackets, etc.

Other Public Outreach Efforts

Other public outreach efforts of the Department to distribute boating and aquatic safety information include school visits, participation in safety fairs, and lectures on specific boating safety issues. These efforts annually reach approximately 10,000 individuals. One week each year is designated as National Safe Boating Week. The Department organizes a number of boating safety events during this week designed to promote safe and enjoyable boating, including:

- Boating shows and safety fairs featuring contests
- Safety-promotional product giveaways
- Boating demonstrations
- Annual press conferences highlighting the boating accident report
- News releases featuring boating safety tips
- Media interviews and radio/TV talk show appearances

Educational Efforts by Law Enforcement Agencies

The marine law enforcement community actively educates boaters. For example, during the 1996-97 fiscal year, the 33 law enforcement agencies participating in the Department's subvention program provided boating safety education to nearly 40,000 vessel operators, primarily through verbal warnings. Boat stops by law enforcement are usually seen as opportunities for on-the-water "tutorials" rather than writing citations.

Working in partnership with businesses, the Department has developed safety promotional campaigns that also provide for positive contact between law enforcement officers and the boating public, including:

- In conjunction with BOAT/U.S., the Department developed the Life Jacket Loaner Program. Officers are provided with life jackets to lend to families on the water with children who do not have them.
- The Department provides officers with free *I got caught with my life jacket on!* T-shirts for distribution to children who are "caught" wearing their life jackets.
- In conjunction with Dairy Queen and Carl's Jr., officers are provided with gift certificates for a free ice cream cone or soft drink, for distribution to children spotted wearing their life jackets.

Officers appreciate these programs as providing opportunities for friendly educational interactions with the public, a mitigation of the necessary warnings and citations.

Several law enforcement agencies also offer boating safety classes to the public as well. These classes usually fill up quickly, and not only educate boaters but have help to foster a positive relationship between law enforcement agencies and boaters.

Educational Efforts by Boating Organizations

The United States Coast Guard Auxiliary and United States Power Squadrons have been educating boaters for years nationwide. These organizations offer comprehensive boating safety courses to the public on a year-round basis in locations throughout the State. Each year, approximately 5,000 boaters are educated through the Coast Guard Auxiliary and the Power Squadrons. To support these efforts, the Department funds a toll-free telephone line that provides information on class schedules and locations.

Aquatic centers throughout the State, operated by universities, cities, counties, nonprofit organizations, and yacht clubs, also provide on-the-water boating safety education. In addition, many private-sector courses are available to the public.

III. Overview of Mandatory Education

Mandatory Education Defined

Mandatory education generally implies that a person is required to pass a boating education course or pass an equivalency examination in order to operate a vessel on a navigable waterway.

The difference between mandatory education and operator licensing is that a certificate issued by a state under mandatory education is normally valid for life and cannot be suspended or revoked, whereas licensing implies the availability of such sanctions. The distinction is not so clear in some states. With both, there is a requirement to demonstrate some threshold of boating knowledge in an examination, which results in the issuance of either a certificate or a license. From state to state there is some disagreement over whether an examination should be proctored or unproctored, and whether such examinations can be "challenged," but, practically speaking, there is little difference between mandatory education and licensing other than the fact that the latter generally entails stricter regulatory oversight. The critical element is how the state crafts the requirements of its legislation.

A Brief History of California Boating Legislation

As early as the 1960's, legislation was introduced in California which would have required mandatory education for boaters, but failed passage. In 1983, Assembly Bill 593, authored by Assemblyman Peter Chacon, was passed. Originally, this bill would have required a license for boat operators, but because of opposition from the boating community, the bill was amended to instead require the Department to study many aspects of boating, including youth operation and boating under the influence of alcohol. The study was conducted and the findings resulted in several major changes in California boating law.

In 1987, a law was enacted requiring operators of motorboats over ten horsepower to be at least 12 years old. The same year, it was also made illegal to operate a vessel with a blood-alcohol level exceeding .10%. In 1991, the blood alcohol limit was lowered to .08%, in keeping with changes to the Motor Vehicle Code.

In 1993, Assembly Bill 1856, authored by Assemblywoman Jackie Speier, was passed. This law required children under seven years of age to wear a life jacket while underway in vessels less than 26 feet in length. In 1994, Assembly Bill 3536, authored by Assemblyman Byron Sher, was introduced. This bill would have required mandatory education for youth operators, but failed passage. In 1997, Senate Bill 545, authored by Senator Herschel Rosenthal, began as a bill that raised the minimum age for the solo operation of a vessel to 16 and also required mandatory education for boaters. In the bill's final form, the section requiring mandatory education was amended to instead

require the appointment of a Boating Safety Advisory Committee and a thorough review of the subject by both the Committee and this Department.

Legislative Activity in Other States

Currently, twenty-eight states and territories and the District of Columbia require some form of either education/certification or licensing for some or all boaters. The requirements for each state are listed in Appendix B.

Maryland was one of the first states to require mandatory education for its motorboat operators. Effective in 1987, the Maryland law requires all persons born on or after July 1, 1972, to pass a boating examination before operating a motorboat.

Legislation requiring mandatory boating safety education for Connecticut was passed in 1993. The law included staggered effective dates according to operator age, with an October 1, 1997, effective date for all motorboat operators. (Those affected included motorboat operators under 20 years of age on October 1, 1993; under 21 on October 1, 1994; under 35 on October 1, 1995, and under 40 on October 1, 1996.)

Other states have targeted specific age groups (such as youth operators) or types of vessels (such as PWC) for mandatory education requirements. For example, Utah requires only personal watercraft operators from 12 to 17 years of age to pass a boating education course.

In 1994, Alabama became the first state to pass legislation requiring motorboat operators to be licensed, with a compliance date of 1999.

Because of the nature of available statistics and definitional inconsistencies, the effectiveness of mandatory education is difficult to prove. For example, in many states, the number of boating accidents that are reported is small, and there is often a wide fluctuation in the number of accidents reported from year to year. With these variables, a meaningful statistical sample is difficult to obtain.

States with mandatory education have seen both decreases and increases in the number of accidents, injuries, and fatalities. Because states sometimes lack the body of information and resources to comprehensively analyze their boating statistics, the effect of mandatory education where it exists is often unclear.

Lastly, several states have passed mandatory education laws too recently to determine what the actual impact may be.

What Other Countries Are Doing

According to information obtained through the International Council for Marine Industry Associations, several countries have enacted laws requiring boat operators to be licensed. In Japan, a license is required for operators of all boats with engines. In

Germany, a license is required for all boats with a motor of more than five horsepower. Italy has four categories of licenses based on the size of the boat, engine power, and the boat usage group. Greece requires a license for all habitable sailboats, all motorboats of more than 15 horsepower, and all inflatables with more than eight horsepower. Canada has enacted a multi-year phase-in of mandatory education. New Zealand recently assembled a committee much like that appointed under SB 545 to examine the issue.

Organization and Newspaper Endorsements

The Personal Watercraft Industry Association supports mandatory education for all personal watercraft operators and has written model legislation upon which states can base their own proposed legislation.

In addition, the National Transportation Safety Board (NTSB), in its Recreational Boating Safety Studies of 1993 and 1998 recommended that states consider passing laws to require operator licensing. The 1993 NTSB report states:

"The accident data and case studies presented in this report strongly suggest that the individuals involved in fatal boating accidents operated their vessels in a manner that suggested a lack of basic knowledge of the rules of the road...; a lack of understanding of safe boating practices...; and a lack of proficiency in operating skills..."

Since 1994, the *New York Times*, *Oakland Tribune*, *USA Today*, *Los Angeles Times*, and the *San Bernardino County Sun* have endorsed either mandatory education or boater licensing.

Mandatory Education Opposition Arguments

Many opponents of mandatory education are philosophically opposed to the requirement, arguing that accident statistics do not justify the creation of a government program that would "intrude" on the lives of persons participating in recreational boating activities.

Recreational boating is generally viewed as a safe activity, and mandatory education is therefore seen as only marginally useful and not cost-effective, given the substantial efforts that would be required to administer such a program.

Opponents also state that voluntary education is working well in California, with excellent voluntary boating education programs available from a number of organizations. Opponents indicate that these existing programs should be enhanced if there is a need to do so, rather than institute mandatory education.

What Boaters Think About Mandatory Education

One of the largest boater organizations in the United States, BOAT/U.S., surveyed its members in 1998 with respect to mandatory education. Responses were received from 9,000 boat owners. Survey results indicated that 88% of BOAT/U.S. members who responded were in favor of mandatory education. In a similar survey published by BOAT/US in 1987, 81% were in favor of a formal education requirement.

A recent Canadian survey indicated that 80% of boaters who responded were in favor of operator competence testing.

A survey conducted by California State University, Sacramento of boat owners in California showed that 54.1 % were in favor of mandatory education. (The survey asked boat owners whether education should be: voluntary (3.5), mandatory (54.1%), public awareness campaign (8.6%), no need for better education (32.3%), with 1.5 % not responding.) More than two-thirds of all respondents thought there was a need for better education. Among those who thought there was a need for better education, 83.1% thought that boating education should be mandatory. A total of 2,357 boat owners from a statistically valid sample from a Department of Motor Vehicles database responded to the survey questions regarding mandatory education.

IV. Contemplated Strategies for Improving Vessel Operator Knowledge and Boating Safety

Department staff analyzed the 17 recommendations provided in the Boating Safety Advisory Committee's report, and assessments are provided here for each recommendation.

The Department's evaluation of the recommendations was based on the merits of the proposals, and does not include detailed estimates of associated costs. Recommendations 1, 2, 3, 7, 8, 9, 12, and 17 would require enabling legislation. Should any of the proposed recommendations result in legislation, an analysis of cost would be more appropriate at that time.

The Boating Safety Advisory Committee's report in its entirety is included in this report as an attachment.

Although not included in the seventeen formal recommendations, the Committee also recommended that the Director maintain the Boating Safety Advisory Committee, and appoint at least one or two boaters who are not affiliated with any boating group. Because the Committee provides the Department with the means to take the pulse of the boating community on crucial issues, we believe its continuation would be helpful.

Recommendation One

As soon as possible, the State of California should require mandatory education for all personal watercraft operators.

Note: There was no opposition to this recommendation among Committee members, although one member voted "neutral" and submitted an opinion letter (page A-10 of this report.)

DISCUSSION

A personal watercraft is a small vessel that uses an internal combustion engine powering a jet pump or propeller. It is designed to carry from one to three persons, and to be operated by a person sitting, standing, or kneeling on the vessel rather than the conventional manner of sitting or standing inside.

PWC registration totals have grown faster than any other vessel registration type over the past several years. In 1991, there were 91,000 PWC registered in California; by 1997 that figure had risen to 154,264. Currently, about 200,000 personal watercraft are sold each year nationwide; PWC constituted 36% of all new recreational boats sold in 1997.

There are an estimated 500,000 PWC operators in California.

There has been extensive nationwide media attention on the issue of personal watercraft. Because of the safety problems associated with the operation of this craft, in 1998, the Personal Watercraft Industry Association (PWIA) decided to support mandatory education, even when targeted at personal watercraft users, which was a reversal from its previous position. The PWIA has also developed a "model act" for states to use for legislative purposes.

The National Transportation Safety Board, in two widely publicized and disseminated boating safety reports, has also recommended mandatory education for operators of personal watercraft.

Accident Information

Boating accidents form the second largest category of transportation accidents in the nation, and PWC are involved in a significant and disproportionately large number of those accidents. PWC-related accidents have increased steadily in California since the Department began tracking them in 1989. The 1997 accident data shows that PWC represented only 17% of all registered vessels, but were involved in 42% of accidents and 52% of all injuries. An argument has been made that PWC operators spend more time

underway than do operators of other vessels, which may account for the high accident totals. However, a boat use study conducted for the Department by California State University, Sacramento, found that even accounting for hours underway, PWC were involved in 1.5 times as many boating accidents as traditional vessels.

Because PWC are relatively inexpensive, they have become extremely accessible to the general public. A common practice of PWC operation is the "trading off" of riders among friends and relatives, many of whom have never operated a vessel before and have no knowledge of the boating rules of the road. In fact, boating accident statistics show that nearly 71% of the PWC involved in accidents were being operated by someone other than the registered owner. It is difficult to focus voluntary educational efforts on "tag-alongs" who, because of a spur-of-the-moment decision, become vessel operators. Operator inexperience is more likely to be a factor in accidents involving PWC than in those involving traditional vessels. According to the 1998 Personal Watercraft Safety Study conducted by the National Transportation Board, 84% of PWC operators have had no boating safety education or instruction.

Excessive speed was the leading cause of PWC-related accidents in 1997. The top speeds of many models of PWC have increased substantially in recent years. In an example noted earlier, one particular 1997 model two-seater, which is less than 10 feet in length, can operate at speeds of up to 65 miles per hour. PWC are also highly maneuverable and can accelerate quickly. Analysis of PWC collisions indicates that nearly 25 % of them involve radical maneuvers such as wake jumping, performing "donuts," or spraying down other persons or vessels. Most operators do not realize the danger of these activities, which result in fatalities each year. In fact, new laws, effective January 1, 1998, prohibit wake jumping within 100 feet of another vessel, and spraying down another vessel or person in the water [SB 347 (M. Thompson)].

Parents are also much more likely to allow their children to operate PWC than traditional vessels. They mistakenly believe that because these craft are small in size compared to most other vessels that somehow the danger they present is also small. Jet-powered vessels can actually be more difficult to operate, especially for operators used to automobiles. The intuitive operator reaction in a crisis is to decrease the throttle, as when operating an automobile, but unlike autos, PWC lose steering capability when the throttle is decreased. Operators also are often surprised by PWC's forceful turning ability, which can catapult the rider overboard.

THE DEPARTMENT'S OPINION

The Department strongly supports this recommendation, which is consistent with Department's mission of protecting the public's right to safe and enjoyable boating. The benefits of a mandatory program outweigh the perceived disadvantages (see Section III of this document.)

Most states with mandatory PWC operator education have chosen to require an approved education course that includes an exam. The Department recommends taking a different approach, only requiring PWC operators to pass a proctored written competency exam. Those who successfully pass the exam would be issued a lifetime certificate.

We believe there would be no compromise to boating safety if PWC operators were allowed to choose how they become educated. There are a number of educational courses available to PWC operators in California. The Department offers the *California Boating Safety Course* (described in Section II of this document), which contains safety information for all boaters, including PWC operators. The Department also offers boating safety educational videos, both for traditional vessel operation and for PWC operation specifically. Educational courses are also available through the U. S. Coast Guard Auxiliary, the U. S. Power Squadrons, and both public and private aquatic centers throughout the State.

This system would be flexible, letting PWC operators decide the type of educational path appropriate for them. Furthermore, this approach takes into consideration the fact that some PWC operators have already been adequately educated. Experienced operators who feel that an educational course is unnecessary could simply challenge the exam and, if successful, receive certification.

Uncertified boaters who are stopped by law enforcement officers would be cited, subject to an appropriate fine and required to attend a boating safety class to obtain certification.

Boaters Affected by This Recommendation

To be effective, education should target all operators of PWC, not just owners. Accident statistics show that nearly 71% of the PWC involved in accidents were not being operated by the registered owner of the craft.

Implementation of the Recommendation

The Department contends that a proctored competency exam should be required for PWC operators, rather than a home-study test. This exam should be tailored to the operation of personal watercraft and test the applicant's knowledge of boating laws, rules of the road, equipment requirements, and safety considerations. Special attention would be placed on the operation of jet-propelled vessels, such as the fact that reducing the throttle diminishes steering capability, and other PWC-specific concerns. The exam should be based on course standards approved by the National Association of State Boating Law Administrators. The Department's educational materials would be available to boaters for the purpose of preparing for the exam.

Operators would take the exam through a proctoring agency. The Department would provide several tests which would be rotated so that all operators did not receive the same exam. This would be similar to the Department of Motor Vehicles' practice

regarding vehicle driver's exams. Operators would have three chances within a one-year period to pass the exam. After taking the exam, the operator would be issued a 30-day temporary certificate for use while awaiting the results. The proctoring agency would mail the exam to the Department of Boating and Waterways for correction and operator notification of results. Operators with passing scores would be issued lifetime certification cards.

Availability of the Exam

There are several agencies that could administer proctored exams, in the same way that driver testing is conducted, except that the exam would be forwarded to the Department of Boating and Waterways for correction. These agencies would also make available the Department's home study course as a study aid.

The exam could be offered at any **Department of Motor Vehicles** office where driver license testing is conducted. **The Community College System** has approximately 126 community colleges throughout the State. Most communities in California have **Adult education and Regional Occupation Programs (ROP)** that could administer the exam. **Aquatic Centers and Boating Organizations**, located throughout the State, currently provide boating safety education and many already give proctored exams. A number of their courses are NASBLA approved.

Costs

We have estimated that at least 500,000 PWC operators would apply for testing. If mandatory testing were phased in over a three-year period, approximately 166,000 boaters would need testing each year. After this period, certification would be limited to new PWC operators with a concomitant workload reduction.

There would be increases in both personnel and material costs. The Department would confer with the proctoring agencies to assess the overhead expense. The cost of the program would be high the first three years until all current PWC operators were certified. A newly created unit would deal with testing activities. A database would be created to store certification records. After this period, certification would be limited to new PWC operators, reducing the costs of the program.

The Department estimates that the cost to implement this proposal would be approximately \$ 2,600,000 for a three-year period. After the three year period, the cost of the program would decrease to under \$100,000 per year. These expenditures, however, would be offset by a one-time fee charged to applicants to reimburse the Department for the cost of the program. The certificates issued by the Department would be valid for life.

The costs associated with a component for PWC renters would also have to be included in the cost analysis. (See Recommendation Three.)

Recommendation Two

Within five years, the State of California should require all operators of vessels over 15 HP to hold either a certificate from a course approved by the National Association of State Boating Law Administrators, or an equivalent or higher certification. Features of this mandatory education should include reciprocity with jurisdictions outside California, applicability to all waters within the State, and standard exemptions as found in section 658.5 of the Harbors and Navigation Code.

Note: The analysis of Recommendation Two parallels that of Recommendation One; Two represents an expanded version of the program described in One.

DISCUSSION

The number of registered boats in California has increased almost every year since 1960. At the end of 1997, there were 894,347 vessels in California. As a point of comparison, there were 420,000 vessels in California in 1970.

It is currently estimated that there are at least two million motorboat operators in California.

Accident Information

Boating accidents form the second largest category of transportation accident in the nation. The American Red Cross indicates that about 355,000 persons are injured in recreational boating accidents each year and that more than 40% of these injuries require medical treatment beyond first aid.

California consistently ranks second in the nation in the number of boating accidents. Currently, no education is required to operate any recreational vessel in California. The only boaters required to take boating safety courses are those who have violated certain sections of the Harbors and Navigation Code or the Penal Code. The legal age to operate a motorboat alone is 16.

In 1997, a total of 1,413 vessels were involved in 925 boating accidents reported to the Department. Nationally, the U.S. Coast Guard has estimated that fewer than 10% of accidents are reported. While the Department believes that reporting in California exceeds the national estimate, if we use that estimate, there could have been some 9000 boating accidents in California last year.

Not only has the number of boats increased each year in California, but the top speeds of many models of PWC have also increased. Motorboats are involved in 95% of

all accidents in California and collisions are by far the most common type of accident, accounting for 45% of all accidents.

Operator inexperience is the second most common cause of accidents. Operators reporting accidents caused by their inexperience demonstrate that they do not know even some of the basic "rules of the road," such as what action to take in head-on or crossing situations with other vessels. There are some similarities to the rules governing automobiles, but most do not correspond, leaving uneducated vessel operators without reference in situations commonly experienced on the water.

A survey conducted by California State University, Sacramento of boat owners in California showed that 54.1 % were in favor of mandatory education. (The survey asked boat owners whether education should be: voluntary (3.5), mandatory (54.1%), public awareness campaign (8.6%), no need for better education (32.3%), with 1.5 % not responding.) More than two-thirds of all respondents thought there was a need for better education. Among those who thought there was a need for better education, 83.1% thought that boating education should be mandatory. A total of 2,357 boat owners from a statistically valid sample from a Department of Motor Vehicles database responded to the survey questions regarding mandatory education.

The substantial increase in the number of boats in California has led to increased congestion on navigable waterways with a corresponding increase in the number of boating accidents and injuries. The number of reported boating accidents in California last year (925) was a new historical high.

THE DEPARTMENT'S OPINION

The Department's rationale for strong support is virtually the same as for Recommendation One and upholds the Department's mission of protecting the public's right to safe and enjoyable boating. The benefits of a mandatory program outweigh the perceived disadvantages (see Section III of this document).

Most states requiring mandatory education have chosen to require vessel operators to take an approved education course that includes an exam. The Department recommends taking a different approach, only requiring vessel operators to pass a proctored written competency exam. Those who successfully pass the exam would be issued a lifetime certificate.

We believe there would be no compromise to boating safety if operators were allowed to choose how they become educated. There are a number of educational courses available to vessel operators in California. The Department offers the *California Boating Safety Course* (described in Section II of this document) which contains safety information for all boaters. The Department also offers boating safety educational videos designed to educate vessel operators. Educational courses are available through the U. S.

Coast Guard Auxiliary, the U. S. Power Squadrons, and both public and private aquatic centers throughout the State.

This system would be flexible, letting operators decide the type of educational path appropriate for them. Furthermore, this approach takes into consideration the fact that some operators have already been adequately educated. Experienced operators who feel that an education course is unnecessary could simply challenge the exam and, if successful, receive certification.

Uncertified boaters who are stopped by law enforcement officers would be cited, subject to an appropriate fine, and required to attend a boating safety class to obtain certification.

Implementation of the Recommendation:

The Department believes that a proctored competency exam should be required rather than a home-study test. This exam should test the applicant's knowledge of boating laws, rules of the road, equipment requirements, and safety considerations. The exam should be based on course standards approved by the National Association of State Boating Law Administrators. The Department's educational materials would be available to boaters for the purposes of preparing for the exam.

Operators would take the exam through a proctoring agency. The Department would provide several tests which would be rotated so that all operators did not receive the same exam. This would be similar to the Department of Motor Vehicles' practice regarding vehicle driver's exams. Operators would have three chances within a one-year period to pass the exam. After taking the exam, the operator would be issued a 30-day temporary certificate for use while awaiting the results. The proctoring agency would mail the exam to the Department of Boating and Waterways for correction and operator notification of results. Operators with passing scores would be issued lifetime certification cards.

Availability of the Exam

There are several agencies that could administer proctored exams, in the same way that driver testing is conducted, except that the exam would be forwarded to the Department of Boating and Waterways for correction. These agencies would also make available the Department's home study course as a study aid.

The exam could be offered at any **Department of Motor Vehicles** office where driver license testing is conducted. **The Community College System** has approximately 126 community colleges throughout the State. Most communities in California have **Adult education and Regional Occupation Programs (ROP)** that could administer the exam. **Aquatic Centers and Boating Organizations**, located throughout the State, currently provide boating safety education and many already give proctored exams. A number of their courses are NASBLA approved.

Costs

We estimate that up to 3,000,000 boaters would apply for testing. If mandatory testing were phased in over a five-year period, approximately 600,000 boaters would need testing each year. After this period, certification would be limited to new operators, with a concomitant workload reduction.

There would be increases in both personnel and material costs. The Department would confer with the proctoring agencies to assess the overhead costs. The cost of the program would be high the first 5 years until all current operators were certified. A newly created unit would deal with testing activities. A database would need to be created to store certification records. After this period, certification would be limited to new operators, reducing the costs of the program.

The Department estimates that the cost to implement this proposal would be approximately \$12-14 million for a five-year period. After the five year period, the cost of the program would decrease to under \$600,000 per year. These expenditures, however, would be offset by a one-time fee charged to applicants to reimburse the Department for the cost of the program. The certificates issued by the Department would be valid for life.

The costs associated with a component for PWC renters would also have to be included in the cost analysis (see Recommendation Three).

Recommendation Three

If mandatory education is adopted, the Department should be authorized to approve alternative type- and site-specific programs for rental operators.

DISCUSSION

There are 894,347 vessels registered in California, 6,345 of which (7.1%) are rental boats.

Accident Information

Although the Department's 1997 accident information indicates that only 8% of all vessels involved in accidents were rented, 15% of personal watercraft involved in accidents were rented.

Operator inexperience is a major cause of accidents and is, in fact, the second most common cause of boating accidents in the State. Most renters are inexperienced in the operation of vessels, especially with regard to the operation of personal watercraft, and could benefit from education.

THE DEPARTMENT'S OPINION

If mandatory certification were enacted in California, we believe that the boat rental industry could suffer a financial hardship if unable to rent vessels to first-time boaters or out-of-state tourists who had not been certified. This is especially true for rental companies located in major tourist or vacation areas of the State, such as Lake Tahoe, San Diego, and the Sacramento-San Joaquin Delta. We believe that rental companies would be adversely impacted because most customers would find it inconvenient and time consuming to be required to study for and take a boating examination prior to renting a vessel, and probably would not do so.

On the other hand, we do not believe that rental operators should be exempted from operator educational requirements, given that rented boats are involved in a significant proportion of accidents, especially personal watercraft.

The Department concurs with this recommendation, and believes that to allow for alternative rental operator education programs, would strike a workable compromise on a critical component of mandatory education in California.

Boaters Affected By This Recommendation

This recommendation would affect all persons renting vessels above 15 horsepower within the State who do not hold a certificate from California, or equivalent certification from another state.

Implementation

The Department recommends that rental agencies be required to provide boating education to renters and to offer them a proctored exam. The required education and testing would be designed to take the minimum acceptable amount of time to complete, so as not to discourage persons from renting vessels.

The education and exam should include boating laws, rules of the road, equipment requirements and safety considerations, *but* would be vessel type- and site-specific. This would allow the renter to learn specifically what he or she needs to know. For example, the operator may or may not need to know about fueling a vessel, about certain equipment requirements, display of numbers, and a variety of other aspects of boating in order to have a safe experience on the water. This is analogous to a tourist, taking an accelerated foreign language course which concentrates on important everyday phrases.

Unlike the exam required for either all personal watercraft operators or all boaters in Recommendations One and Two, this test would not be NASBLA approved, as it would be an abbreviated version and would not attempt to cover everything a NASBLA-approved course would.

The Department would provide standard questions that would appear on all exams and also additional questions that would be vessel specific. The rental agencies would be able to use these exams to test their customers. The Department suggests that agencies be required to provide the renters all information concerning local ordinances or safety concerns about the particular waterway on which the renter would be operating.

The test would be taken at the rental site with rental agency personnel acting as proctor. This may seem like a conflict of interest, but most rental agencies are responsible and want their renters to be safe on the water. Accidents are not only tragic, but they are costly, present liability problems, and cause a major inconvenience to the rental agency if the vessel needs substantial repair and is out of commission for a period of time. The law should provide for a fine to be levied against the rental agency if a renter/operator who has not taken a safety course has an accident.

Costs

The costs associated with this recommendation would have to cover additional work as follows: the Department would publicize the change in the law and inform rental agencies of the requirement to test their uncertified customers; Department staff would have to prepare an exam for each vessel type, possibly as many as ten; and the rental agencies might need to be monitored to ensure compliance with the law, necessitating site visits.

The Department estimates that the cost to implement this proposal would be under \$100,000 per year.

Recommendation Four

The Department of Boating and Waterways should act as a clearinghouse for boater education programs provided by both public and private agencies.

DISCUSSION

The Department of Boating and Waterways currently recommends boating safety courses that are approved by NASBLA, which has developed what could be considered national standards, absent the U.S. Coast Guard's doing so.

The Department acts as a clearinghouse only for information about NASBLA-approved boating safety classes offered by the Department which includes courses offered by the U.S. Power Squadrons and U.S. Coast Guard Auxiliary. These classes are publicized in a pamphlet, in semi-annual news releases, and on our Internet Website. Department staff also review courses offered statewide for NASBLA approval.

The Department does not provide printed or Internet information about privately offered non-NASBLA-approved classes. For a State agency to do so would be tantamount to endorsing those classes, and the Department believes it is inappropriate to endorse classes that it has not reviewed.

THE DEPARTMENT'S OPINION

The Department already acts as a clearinghouse for NASBLA-approved courses, and can add to its listings those private courses that are NASBLA-approved. However, we do not believe it is advisable or practical for the Department to provide a list of all other boating education courses, the utility and quality of which would be unknown. Therefore, the Department does not concur with this recommendation.

Recommendation Five

The Department should incorporate environmental components into existing and future educational components.

DISCUSSION

The Department's education components include a home-study boating course, a high school boating curriculum, and a K-8 *AquaSMART* water and boating safety curriculum, all of which have an environmental component.

In addition, the Department currently publishes the pamphlet, *Facts About Marine Pollution Laws*, which covers Federal and State marine pollution laws, litter, marine sanitation devices, plastic debris, oil and fuel pollution prevention, toxic chemicals, and anti-fouling paint. This information is also included in the Department's booklet, *ABCs of California Boating Law*, a copy of which is provided to every registered vessel owner; the booklet is also available on the Department's Website. The Department also publishes environmental information in its newsletter, and in Department of Motor Vehicles mailings to all registered boat owners. As a member of the California Clean Boating Network, a consortium of State and local agencies, the Department serves as a clearinghouse for boating-related environmental information provided by these agencies.

THE DEPARTMENT'S OPINION

The Department concurs with this recommendation, and in fact, is already providing environmental information to boaters in a variety of forms, as discussed. The Department is sensitive to environmental concerns and will continue to include environmental information in new publications as appropriate.

Recommendation Six

The Department of Boating and Waterways should encourage and support the provision of premium insurance discounts by insurance companies to boaters for successful completion of boating safety courses.

DISCUSSION

The Department has always supported the practice of insurance companies offering premium discounts on marine/vessel coverage to their clients who have successfully completed a boating safety course approved by the Department. Section 668.1 of the Harbors and Navigation Code (H&NC) and Section 8000 of Title 14 in the California Code of Regulations (CCR) require the Department to approve and maintain an approved listing of boating safety education courses. This list includes the Department's home-study *California Boating Safety Course*.

When answering inquiries about our free *California Boating Safety Course*, it is routine for staff to mention the availability of premium discounts from many insurance companies upon presenting a course completion certificate. Most people are surprised by this information and enthusiastic about these possible monetary savings.

Periodically, the Department sends an information letter to marine insurance providers explaining the boating safety courses we approve, and encouraging a discount program for those who voluntarily complete such a course. Discounts vary by insurance company and range from 5% to 20%. Our last correspondence with the insurance companies was in January 1994.

THE DEPARTMENT'S OPINION

The Department concurs with this recommendation and will continue its efforts to encourage insurance companies to award discounts to boaters for successful completion of NASBLA-approved courses. The Department plans to send a new information letter to marine insurance providers, further endorsing such a discount program.

Recommendation Seven

The State of California should amend Section 658.3(a) of the Harbors and Navigation Code to read, "No person shall operate a motorboat, sailboat, or vessel that is 26 feet or less in length unless every person on board who is under twelve years of age is wearing a Type I, II, or III Coast Guard approved personal flotation device while that motorboat, sailboat, or vessel is underway."

DISCUSSION

Section 658.3(a) currently reads:

No person shall operate a motorboat, sailboat, or vessel that is 26 feet or less in length unless every person who is six years of age or less is wearing a Type I, II or III Coast Guard approved personal flotation device while that motorboat, sailboat, or vessel is underway.

In 1994, a State law went into effect which required children under seven years of age to wear a type I, II, or III Coast Guard approved personal flotation device (PFD) while on an underway vessel 26 feet or less in length.

Studies have shown that children age 12 and under do not have the maturity to act appropriately in emergency situations. For example, a well-known consultant who has researched lifejacket safety for many years, has written an issue paper on the subject of children and lifejacket use. According to this researcher, children under 13 can perform several functions at a time, but lack the ability to "serialize" these functions. If a child is not wearing a PFD while aboard a vessel and a situation occurs in which one is necessary, the child would have the responsibility of locating the PFD, putting it on, making sure it fits, and getting to safety, under emergency conditions that can induce panic or shock. Even if the child were able to keep calm and process what needed to be done, in many cases all occupants of the vessel would be in the water and the lifejackets inaccessible. Even if a lifejacket is reachable in the water, the child may not be able to put it on. Experiments have shown that putting a lifejacket on in relatively calm water is difficult, requiring some strength and dexterity. Putting one on in rough water can be impossible. Other victims may be injured, too far away in the water, or otherwise unable to assist the child.

Numerous organizations throughout the country that support requiring children under 13 years of age to wear lifejackets are listed below:

- The American Academy of Pediatrics
- The American Medical Association
- The National Association of State Boating Law Administrators
- The National Boating Safety Advisory Council
- The National Marine Manufacturers Association
- The National PFD Manufacturers Association
- The National Recreational Boating Safety Coalition
- The National Safe Boating Council
- The National Safety Council
- The National Transportation Safety Board
- The National Water Safety Congress
- The United States Coast Guard
- The US Sailing Foundation

Accident Information

In California, the leading type of boating fatality involves vessels capsizing in rough water conditions. Usually, these accidents happen without warning, throwing the occupants out of the vessel and many times trapping the PFDs stowed aboard beneath the overturned hull. Boaters may be inappropriately clothed, hampering their ability to swim, and cold water can induce muscle cramps or paralysis. Also, many capsizing victims are injured in the incident. Due to any of these factors, a boater, even a good swimmer, who is not wearing a lifejacket is liable to be in imminent danger of drowning.

THE DEPARTMENT'S OPINION

The Department concurs with this recommendation, with one modification, that "under 12 years of age" be changed to "under 13 years of age." The Department strongly recommends this change not only in light of the evidence to support it, but also because it would provide uniformity with numerous other states that have enacted "under-13" life jacket laws.

Costs

Existing law already requires one properly fitting life jacket per person to be carried on board. There would be minor, absorbable local law enforcement costs to implement this recommendation.

Recommendation Eight

The State of California should add a new Harbors and Navigation Code section, "All persons aboard personal watercraft and persons being towed behind a vessel on water skis, aquaplane or similar device shall wear a personal flotation device except during special events referenced in Section 658.5 (c) of the Harbors and Navigation Code."

DISCUSSION

The only law requiring boaters to wear lifejackets is Section 658.3 of the Harbors and Navigation Code, which requires children under 7 to wear a type I, II, or III Coast Guard approved lifejacket while aboard an underway vessel 26 feet or less in length.

Accident Information

In 1997, 17% of vessel accidents occurred during water skiing activities. Seventy-three percent of these accidents resulted in injury. Personal watercraft were involved in 42% of all accidents and 62% of these were injury-related.

Both accidents involving water skiing and accidents involving those riding personal watercraft have high numbers of injuries associated with them. People aboard personal watercraft and water skiers are in exposed positions while underway. When people engaging in these activities are involved in accidents, they are very often injured. They often hit the water at high speeds or can be struck by other vessels and have no protection from these collisions.

Accident analysis shows that some victims with severe injuries rendering them unable to stay above water have been kept afloat by their life jacket until help arrived.

In a report released in May of 1998, the National Transportation Safety Board recommended that the State of California enact legislation to require the use of a personal flotation device while operating a personal watercraft.

The National Transportation Safety Board's accident analysis showed that 97% of the PWC operators involved in accidents (971 of 999 reported) were wearing a lifejacket. Personal watercraft are the only type of recreational vessel for which the leading cause of death is not drowning; however when drowning is involved, it is typically because the rider was not wearing a lifejacket. According to the U.S. Coast Guard data for 1995, 38% of PWC fatalities were from drowning (26 of 68); 20 of the 26 persons who drowned were not wearing lifejackets.

THE DEPARTMENT'S OPINION

Considering the above facts, we believe that the recommendation is justified, with the addition of language to the effect that the PFD be Coast Guard approved.

Costs

Existing law requires one life jacket per person to be carried on board. There would be minor, absorbable local law enforcement costs to implement this recommendation.

Recommendation Nine

The State of California should develop a program for mandatory education of the boating law enforcement community. At a minimum, all boating law enforcement officers should be required to complete the Boating Safety and Enforcement-Basic class.

DISCUSSION

The general preparation of law enforcement officers for assignments related to public safety is structured with established training benchmarks and expectations. This standardized peace officer training uniformly educates and prepares police officers for duty. Preparing marine law enforcement officers for their duties should be no different.

General-duty police officers are required to take an established number of courses that are certified by the Commission on Police Officer Standards and Training (POST). POST certification ensures that the training offered meets their standards for adequately educating the officer. All boating law enforcement training offered by the Department is POST certified.

The Department currently offers the following courses to law enforcement personnel:

- Basic Boating Safety and Enforcement
- Seamanship-Rescue Boat Operations
- Boating-Basic Skills Training
- Coastal Piloting and Navigation
- Marine Firefighting
- Boating Accident Investigation/Reconstruction
- Boating Intoxication Enforcement

This training is available to law enforcement agencies statewide, but not required. Some law enforcement agencies conduct their own training programs. Other agencies require that their officers attend the Department's courses. Many agencies do both. However, a number of agencies do not require their marine officers to take any specialized training. This has led to a lack of uniformity in the level of training of marine officers in this state.

THE DEPARTMENT'S OPINION

Although the Department generally concurs with this recommendation, it is our opinion that the *Boating Safety and Enforcement-Basic* course offered by the Department is not comprehensive enough.

The *Boating Safety and Enforcement-Basic* class introduces students to the boating environment. This class teaches boating law enforcement theory in a structured lecture format, and does not provide hands-on experience, which is offered in subsequent courses provided by the Department (listed in the *Discussion* section above).

We propose instead that a task force be appointed to review the available training courses and discuss what types of courses should be required for all boating law enforcement officers. Recommendations would then be made to local government entities, usually county sheriffs' marine patrol units, that participate in the Department's boating law enforcement aid program.

Costs

If the Department's *Boating Safety and Enforcement-Basic* class were to be made mandatory for all boating law enforcement officers, there would be increased, absorbable costs to the Department's law enforcement training program. It is anticipated that this course would be POST certified. Therefore, qualified local agencies could apply for reimbursement.

Recommendation Ten

The Department of Boating and Waterways should develop a statewide program to educate the judiciary regarding the need to impose consistent sanctions for violations. This education should stress the need for "across the board" fines and/or additional educational requirements for violators."

DISCUSSION

This recommendation was intended to address the problem of those judges with little knowledge or experience of boating, who for example, reduce the penalties for, or "throw out," speeding tickets because operating at 20 MPH in a 5 MPH zone seems to them a minor transgression.

The Judiciary Council sets uniform bail and penalty schedules. The following is from *Uniform Bail and Penalty Schedules, California Rules of Court, Rule 850, IV. Total Bail, D.:*

The "Total Bail" amounts within the Uniform Boating, Forestry, Fish and Game, Public Utilities, Parks and Recreation, and Business Licensing Bail Schedules are suggested amounts and their adoption by courts is not compulsory.

The purpose of a bail schedule is to provide standard amounts for bail, to serve as a guideline for the imposition of a fine as a portion or all of the penalty, for a first conviction of a listed offense. The bail schedule is a quick reference to the range of fines and penalties provided for in law.

THE DEPARTMENT'S OPINION

The Department concurs with this recommendation. We have long been aware of anecdotal evidence that many magistrates, lacking knowledge of boating, misunderstand the gravity of some boating violations, and inappropriately dismiss or reduce penalties. In fact, in the past the Department has produced and distributed educational videos for judges on boating law topics. The Imperial County Sheriff's Department boating enforcement unit has addressed this problem in their area through an educational program. The boating unit invites municipal court judges to ride along on patrol on local rivers and lakes that experience a high number of boating accidents, and makes a presentation including slides of accident victims and related property damage resulting from the kinds of violations the judges see in their courtrooms.

Department staff will develop information letters and videos and will make appearances at judicial meetings to provide education to judges on the subject of boating laws. Additional staff hours will be needed to provide education to the judicial system.

Recommendation Eleven

The State of California should support increased enforcement in problem areas, times, days, and seasons by providing grant incentives to local jurisdictions.

DISCUSSION

The Department administers two financial assistance programs for local law enforcement agencies. The monies funding these programs are derived from vessel registration fees and gasoline taxes paid by boaters to propel their vessels. In addition, the Department receives federal funds, which are used for grants for the purchase of boating equipment for local agencies.

1. Subvention Grant Program

Local entities must meet the following basic criteria to be eligible for the subvention program:

1. Entities must have a boating safety and enforcement program as defined in H&NC Sec. 663.7 (a) that includes the following functions:
 - a. Enforcement of state and local measures for regulation of boating activities.
 - b. Inspection of vessels.
 - c. Supervision of organized water events.
 - d. Search and rescue.
 - e. Recovery of drowned bodies.
2. The Department requires an annual resolution from the Board of Supervisors, authorizing the county to participate in the subvention program and certifying that the county will expend for boating safety programs during that year not less than an amount equal to 100% of the amount received by the county from personal property taxes on vessels (estimated boat taxes). (H&NC Sec. 663.7 (e)).

The subvention program is a reimbursement program that allocates funds to qualifying counties and entities within these counties on a yearly basis. Reimbursements are for actual expenditures such as personnel costs, operation and maintenance, and equipment which are within the scope of the subvention program. It is the responsibility of the local entity to use these funds in a manner that provides an effective boating safety and enforcement program and a safe boating environment for recreational boaters on waterways under their jurisdiction.

- In FY 1997-98, \$7.6 million was allocated to 32 counties and 2 cities that participated in this program.
- In FY 1998-99, \$8.1 million has been appropriated for allocation to 35 counties and 2 cities participating in this program.

2. Equipment Grant Program

In addition to the Subvention Program, the Department also has an equipment grant program to help law enforcement agencies to purchase equipment such as boats, electronics, and engines for use in their boating safety and enforcement program.

THE DEPARTMENT'S OPINION

The Committee did not provide a definition of the term *grant incentives*. We believe, however, that the Committee's intent was to recommend establishing an additional avenue of funding to benefit local law enforcement agencies not eligible for the Department's existing grant program and to increase funding for agencies that do qualify for the Department's grant program. This funding would be used to enhance law enforcement patrols during peak boating periods.

We do not concur with this recommendation. The Department already provides for the needs of counties willing to spend 100% of their boat taxes on boating safety programs, as noted in the *Discussion*, above. The combination of a county's estimated boat taxes and any State financial aid received gives the county the flexibility to increase enforcement in problem areas.

A county should first dedicate 100% of its estimated boat taxes for boating safety and enforcement before the State considers allocating additional funds, as mandated in existing law. County-sponsored marine law enforcement and other law enforcement agencies within counties not dedicating all their estimated boat taxes to boating safety and enforcement should first expend those revenues derived from boat taxes before seeking supplemental funding from the state.

Furthermore, the Department accommodates the needs of counties who are not eligible for the subvention program by providing the equipment grant program. Counties can use this program to help offset other program costs, such as increased enforcement during peak periods.

Recommendation Twelve

The State of California should require mandatory education for boating moving violations.

DISCUSSION

Operator inexperience is the second most common cause of boating accidents in California. No education is required to operate a vessel in the State. The only boaters required to take boating safety courses are people who have violated certain sections of the Harbors and Navigation Code or the Penal Code.

Existing law provides that any person who is convicted of operating a vessel under the influence of alcohol or drugs must be ordered by the court to take a boating safety course. Any person convicted of specified moving violations (including reckless and negligent operation, speeding, vessel operation by a minor under the influence, water skiing without an observer, under-age operation) may be ordered by the court to take a boating safety course, and upon a subsequent conviction within seven years of a previous conviction must be ordered by the court to take a boating safety course.

Citation Statistics

Although statistics on boating moving violations are not kept in a central location, the Department has compiled these statistics for the 30 counties in its subvention program. In 1997, participating agencies issued 4,124 citations and made 299 arrests.

THE DEPARTMENT'S OPINION

Whether mandatory education for motorboat operators is passed into law or not, this recommendation would enhance boating safety. It would target those persons most in need of boating education, i.e., vessel operators who have been convicted of violating California boating law. The Department concurs with this recommendation.

In the absence of mandatory education, the law could be written to require that violators successfully complete a boating education course approved by the Department.

Costs

There would be minor costs at the local level to administer a law requiring mandatory education for violators.

Recommendation Thirteen

The Department of Boating and Waterways should study a method for tracking boating convictions. (For example sending reports of violations to the Department of Motor Vehicles, so that fines and points could be assessed.)

DISCUSSION

Currently, records of boating moving violations are not kept in a centralized database, as are violations of the Vehicle Code, which are attached to driving records at the Department of Motor Vehicles.

Violations of 655 (b), (c), (d), (e) and (f) (intoxicated vessel operation) of the Harbors and Navigation Code appear on a boater's driving record. These violations all deal with boating under the influence of alcohol or drugs.

THE DEPARTMENT'S OPINION

The Department does not concur with this recommendation. We believe that for violations of 655 (b), (c), (d), (e) and (f) of the Harbors and Navigation Code to appear on a boater's driving record is sufficient.

Recommendation Fourteen

The Department of Boating and Waterways should increase existing and develop new mass media campaigns to highlight and promote the Department of Boating and Waterways programs and boating safety to the public by targeting trade associations and boating clubs, enthusiast publications, boat shows and other appropriate audiences.

DISCUSSION

Sections 62.8 and 656.4 of the Harbors and Navigation Code authorize the Department to develop a program of public information in the interest of reducing loss of life and property in the operation of vessels. In regard to this mandate, the Department's public information section communicates safety messages to the boating community through the use of news releases, safety pamphlets, public service announcements, posters, safety videos, newsletters, and other communication tools.

THE DEPARTMENT'S OPINION

The Department concurs with this recommendation. The Department plans to enhance and expand its outreach efforts to boaters to increase boating safety.

Implementation

By using a multi-media approach, we can reach the public with a number of safety messages. Boating is a year-round activity in many parts of the State. The Department plans to continue to fulfill its mission to provide safe and enjoyable boating by expanding its multi-media public safety program to a year-round campaign in those regions.

Last year the Department produced a public services announcement on the subject of PWC safety that illustrated the dangers of wake jumping. It was distributed to television stations throughout California. The Department would like to increase the number of PSAs produced each year, to include a variety of safety messages.

The Department would also like to expand its billboard and radio campaigns from seasonal (Memorial Day through Labor Day) to provide year round boating safety messages such as the dangers of hazardous waters and boating alone.

The Department proposes to expand its delivery of safety and boating-law messages to the print media. Because many enthusiasts read periodicals dedicated to their interests, the Department hopes to more effectively target these constituents. Ads,

accident statistics, safety tips and boating law updates placed in industry magazines would serve to reinforce the various public safety messages provided by the Department.

Recommendation Fifteen

The Department of Boating and Waterways should conduct a California Recreational Boating Survey, similar to the American Red Cross's National Boating Survey, including both registered and documented vessels.

(Note: A recreational vessel of at least five net tons that is wholly owned by a United States citizen or citizens is eligible for documentation by the United States Coast Guard.)

DISCUSSION

In 1991, the American Red Cross (ARC) released a study that discussed boating safety issues nationwide. The survey was conducted by telephone and contacted 3,700 boaters, and measured many aspects of boating, including general demographics of boaters, such as age, vessel type, number of hours spent boating, where they boated, and activity types. The survey also gathered information on the use of alcohol by boaters; the type of boating education boaters had been exposed to; and the number of boating accidents people had, compared with the number of accidents reported to State programs. ARC's resulting report estimated that fewer than 10% of accidents are reported, and criticized states' report gathering efforts.

THE DEPARTMENT'S OPINION

The Department does not concur with this recommendation. JSI Research and Training Institute, through a U.S. Coast Guard grant, will be conducting a national recreational boating survey in 1999, which should be of much interest to the states. The survey hopes to capture data including hours spent on the water, types of vessels and activities, life jacket use, what boaters are at risk, and other factors. We believe a prudent course of action would be to evaluate the results of this national survey before embarking on a similar one.

Recommendation Sixteen

The Department of Boating and Waterways should conduct ongoing evaluations to measure the effectiveness of its programs.

DISCUSSION

The Department has established a strategic plan that includes establishing continuous evaluations to measure the effectiveness of our programs. Components of evaluation, including customer service surveys, are currently in the process of being implemented.

THE DEPARTMENT'S OPINION

The Department concurs with this recommendation. We are already conducting customer service surveys and plan to conduct program effectiveness surveys in the future.

Recommendation Seventeen

The State of California should improve data collection in the area of boating safety. Assess the following options with outside groups, for example, the insurance industry and law enforcement, for the collection of data:

- *All boating statistics from all sources should be filed with a new Department of Boating and Waterways clearinghouse.*
- *Require that accident reports required for insurance claims be filed with the Department of Boating and Waterways.*
- *Require boating officers to assist in all accident reporting.*
- *Require law enforcement agencies to collect and send boating accident reports to the Department of Boating and Waterways.*
- *Require hospitals and rentals to notify law enforcement of boating accidents.*
- *Include documented boats in registration data*

Refine and simplify data collection. Enlist public cooperation and include public input. Prepare public service announcements explaining why we need to collect data.

DISCUSSION

It is a continuing goal of this department to improve both the collection and dissemination of boating information. We welcome the suggestion that we assess these subrecommendations with outside groups; in the meantime, following are our immediate thoughts:

1. All boating statistics from all sources should be filed with a new Department of Boating and Waterways clearinghouse.

The Department concurs with the spirit of this subrecommendation; however we believe we already provide this service. It is the Department's ongoing policy to continually expand our information services, especially taking advantage of the World Wide Web.

Currently, the Department provides boating information to the public including vessel registration totals, boating accident statistics, and information concerning waterway guides, legislation, safety information, boating law, marina locations, boating

safety classes, real-time coastal wave data, and other information. This information is also available on our Internet Website, at <www.dbw.ca.gov>. Our Website links to the Coast Guard's Website where visitors can access national boating statistics.

The Department also makes various boating studies and information concerning boating laws in other states available to the public.

2. Require that accident reports required for insurance claims be filed with the Department of Boating and Waterways.

The Department generally concurs with this subrecommendation. In 1994, the State of Nevada mandated a similar program which requires both insurance companies and vessel repair shops to send reports to the State when their customers are involved in boating accidents. After this law went into effect, the number of accident reports sent in to Nevada's boating program increased by a third.

A similar program could be implemented in California. However, because it is difficult to estimate the increase in the volume of accident reports that the Department would receive, we believe that a pilot program should be established with two or three insurance companies before fully implementing this subrecommendation. The pilot program would be voluntary, so legislation would not be needed.

Costs

The pilot program will involve minimal, absorbable costs. Costs of an expanded program will be projected based on the completed pilot program.

***3. Require boating officers to assist in all accident reporting, and
4. Require law enforcement agencies to collect and send boating accident reports to the Department of Boating and Waterways.***

Subrecommendation 3 is too general, and as written could place an unreasonable burden on local law enforcement. The Department does agree with Subrecommendation 4, requiring law enforcement to gather and forward reports to the Department. Many law enforcement agencies report all accidents to the Department to aid us with our safety programs and statistics. Other agencies only report fatal accidents to the Department. This inconsistency in reporting does not give us an accurate picture of boating problems statewide.

However, we believe that Subrecommendation 4 should be modified to include only reports on accidents that meet the reportable accident criteria established by the U.S. Coast Guard:

- The accident involved an injury requiring treatment beyond first aid or the death or disappearance of a boater.
- There was property damage beyond \$500 or the complete loss of a vessel.

We believe, however, that before implementing this modified subrecommendation, the Department should confer with local law enforcement.

Costs

The costs to the Department to implement Subrecommendation 4 would be minimal, as existing staff could absorb the increase in workload. The cost to law enforcement agencies would vary. Agencies who already send in boating accidents would be unaffected. Agencies who only report fatal accidents would have to expend time sending copies of reports to us.

5. Require hospitals and rentals to notify law enforcement of boating accidents.

The Department does not concur with this Subrecommendation. We do not feel that it should be the responsibility of hospitals to notify law enforcement agencies of boating accidents, and hospitals would almost certainly oppose legislation mandating them to do so. We would, however, like to explore having the medical community assist us by distributing boating accident reports forms.

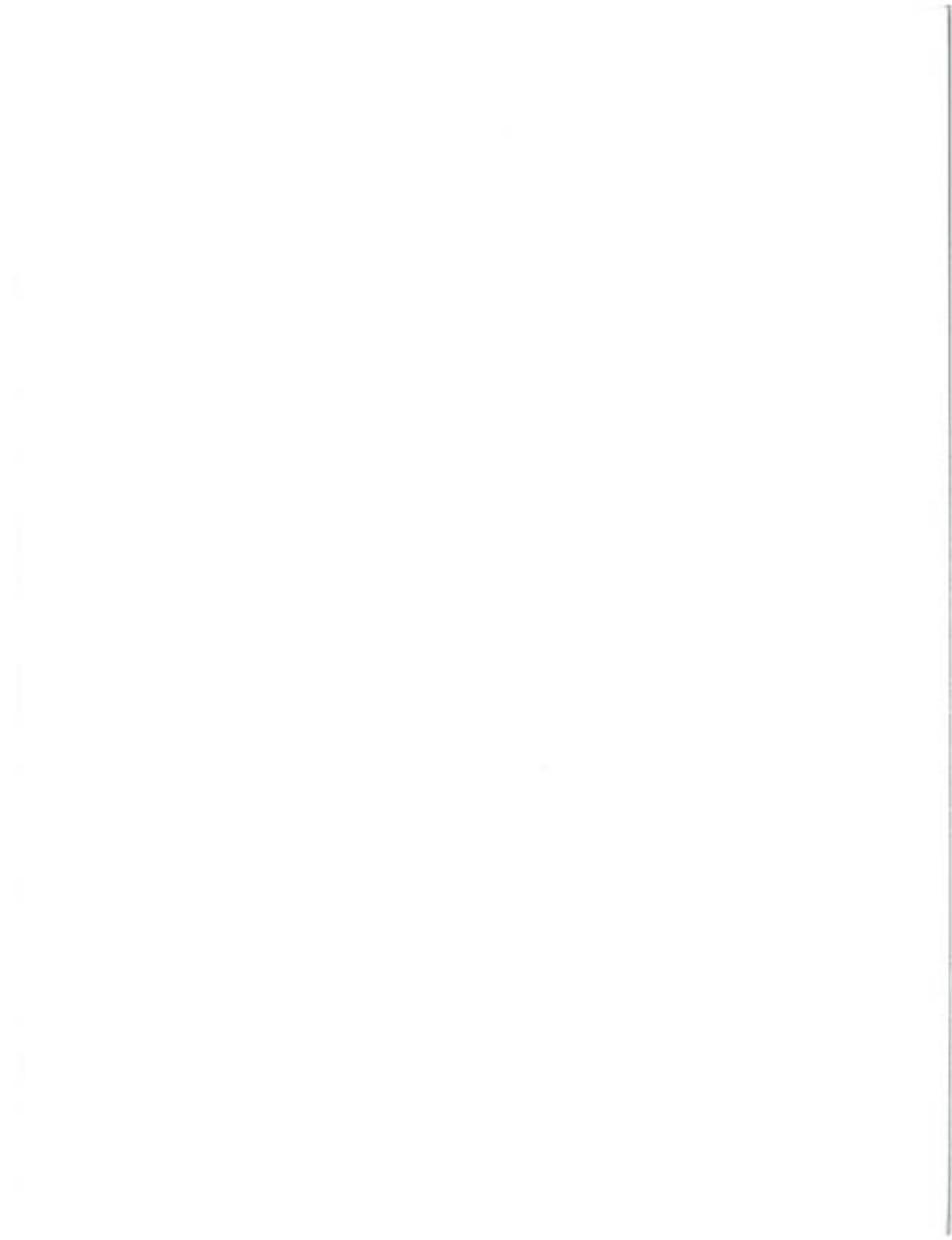
Boat rental companies should be encouraged to provide accident-reporting forms to their customers who have been involved in an accident.

6. Include documented boats in registration data

The Department does not concur with this subrecommendation, because of the current limitations of documented vessel data. In 1997, there were approximately 19,400 documented vessels in California. However, an unknown percentage of this total are owned by residents of landlocked western states who keep their vessels in California ports. Also unknown is how many of these vessels are actually out of the country for part or all of the year. Due to these uncertainties, the Department prefers not to mingle these statistics with vessel registration data. However, if the Coast Guard's documentation data were improved, we could include it in the registration data we provide.

With regard to the BSAC's final suggestions that we refine and simplify data collection, enlist public cooperation and include public input, and prepare public service announcements explaining why we need to collect data, the Department is currently revising both the Vessel Accident Report Form and the Boating Accident Report form in order to improve data collection. The Department includes on its Website a discussion

about the importance of reporting accidents, and will consider producing a public service announcement on this topic.



V. APPENDIX



Appendix A

Boating Safety Advisory Committee

**Recommendations to Enhance Boating
Safety in California**

**Presented to the Department of
Boating and Waterways**

June 30, 1998

Memorandum

To: Charles Raysbrook, Director
California Department of Boating and Waterways

From: Boating Safety Advisory Committee

Date: June 30, 1998

Re: Recommendations for the Enhancement of Boating Safety in California

The Boating Safety Advisory Committee, appointed by the Director of Boating and Waterways pursuant to Section 658.6 of the Harbors and Navigation Code, is pleased to present its recommendations in this report. These recommendations represent the collective thinking of representatives from the boating community, as specified by the enabling legislation.

We ask that you keep Committee members advised as to the progress of the Department's report to the Legislature, and other related activities. In conclusion, the Committee wishes to thank the Department of Boating and Waterways' staff for their outstanding support, resources, and hard work.

Art Agnew United States Power Squadrons	Shawn Alladio K-38	Darrell Allison United States Power Squadrons
Alfred Balitzer Boating and Waterways Commissioner	Paul Bender Southern California Marine Association	Skip Breland Western Marine Insurance Svcs.
B. Chris Brewster San Diego Lifeguard Service	Dedrick Denison Recreational Boaters of California	Mark Denny International Jet Sports Boating Assoc.
Brian Dugar California State University, Sacramento Aquatic Center	Don Durant Club Nautique	Dan Flynn Office of Senator Rosenthal
Jim Manues Dana Point Marina Company	Betty Oakey United States Coast Guard Auxiliary	John Pitzer Redondo Beach Harbor Patrol
Mark S. Poster Big Bear Municipal Water District	Paul Priolo Chairman, Boating and Waterways Commission	Barbara Smith Sacramento County Sheriff's Dept.
Dave Smith Water Resorts Inc.	James Stilwell Moss Landing Harbor District	M'K Veloz Northern California Marine Assoc.

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The mission of the task force is to make recommendations to the Department of Boating and Waterways that will enhance boating safety and education of vessel operators.

EXECUTIVE SUMMARY

Background

The passage of Senate Bill 545, authored by Senator Rosenthal, required the Director of the Department of Boating and Waterways to appoint a Boating Safety Advisory Committee by February 1, 1998. In accordance with the legislation, Director Charles Raysbrook appointed a Committee who represented a wide spectrum of California's boating community. The Committee's charge was to provide recommendations to enhance vessel operator knowledge and boating safety and present these recommendations to the Department of Boating and Waterways in a report by July 1, 1998. The Department staff will use the Committee's report to prepare a second report that will contain recommendations for enhancement and expansion of boating safety and education. The Department's report will be presented to the Legislature by October 1, 1998.

RECOMMENDATIONS

The seventeen recommendations contained in this report are the product of thoughtful discussion, careful consideration of impacts on the boating public, and a desire to preserve recreational boating as a safe and enjoyable activity for California residents and visitors. These recommendations are consolidated under four headings: Education, Equipment, Law Enforcement, and Statistics/Information.

These recommendations were reached by majority consensus. However, when a committee member had a strong objection to a recommendation, the objection was noted as a minority opinion. Recommendations 2, 3 and 13 contain minority opinions, which are footnoted. Complete explanations of these opinions can be found in the appendix of this document.

In addition to the seventeen recommendations listed below, the Committee recommends that the Director establish a standing Boating Safety Advisory Committee (BSAC.) The new committee should be a representative body of the boating community and should include one or two boaters not affiliated with any boating group. Initially, the BSAC should be comprised of the individuals who worked together to produce this report.

Education

1. As soon as possible, the State of California should require mandatory education for all personal watercraft (PWC) operators. (Note: There was strong support for this recommendation among Committee members, and no opposition.)
2. Within five years, the State of California should require all operators of vessels over fifteen horsepower to hold either a certificate from a course approved by the National Association of State Boating Law Administrators, or an equivalent or higher certification. Features of this mandatory education should include reciprocity with jurisdictions outside California, applicability to all waters within the State, and standard exemptions as found in section 658.5 of the Harbors and Navigation Code.¹
3. If mandatory education is adopted, the Department should be authorized to approve alternative type and site specific programs for rental boat operators.²
4. The Department of Boating and Waterways should act as a clearinghouse for boater education programs provided by both public and private agencies.
5. The Department should incorporate environmental components into existing and future educational programs.
6. The Department of Boating and Waterways should encourage and support the provision of premium discounts by insurance companies to boaters for successful completion of boating safety courses.

Equipment

7. The State of California should amend Section 658.3(a) of the Harbors and Navigation Code to read "No person shall operate a motorboat, sailboat, or vessel that is 26 feet or less in length unless every person on board who is under twelve years of age is wearing a Type I, II, or III Coast Guard approved personal flotation device while that motorboat, sailboat, or vessel is underway."

¹ Refer to the minority opinion on page A1.

² Refer to the minority opinion on page A2.

8. The State of California should add a new Harbors and Navigation Code section: "All persons aboard personal watercraft and persons being towed behind a vessel on water skis, aquaplane, or similar device shall wear a personal flotation device except during special events referenced in section 658.5(c) of the Harbors and Navigation Code."³

Law Enforcement

9. The State of California should develop a program for mandatory education of the boating law enforcement community. At a minimum, all boating law enforcement officers should be required to complete the *Boating Safety and Enforcement-Basic* class.
10. The Department of Boating and Waterways should develop a statewide program to educate the Judiciary regarding the need to impose consistent sanctions for violations. This education should stress the need for "Across The Board" fines and/or additional educational requirements for violators.
11. The State of California should support increased enforcement in problem areas, times, days, and seasons by providing grant incentives to local jurisdictions.
12. The State of California should require mandatory education for boating moving violations.
13. The Department of Boating and Waterways should study a method for tracking boating convictions. (For example, sending reports of violations to the Department of Motor Vehicles, so that fines and points could be assessed.⁴)

³ This recommendation is consistent with recommendation M-98-102 in the National Transportation Safety Board's study on personal watercraft safety, released in May of 1998. (NTSB/SS-98/01)

⁴ Refer to the minority opinion on page A7

Statistics and Information

14. The Department of Boating and Waterways should increase existing and develop new mass media campaigns to highlight and promote the Department of Boating and Waterways programs and boating safety to the public by targeting trade associations and boating clubs, enthusiast publications, boat shows and other appropriate audiences.
15. The Department of Boating and Waterways should conduct a California Recreational Boating Survey, similar to Red Cross's National Boating Survey, including both registered and documented vessels.
16. The Department of Boating and Waterways should conduct ongoing evaluations to measure the effectiveness of its programs.
17. The State of California should improve data collection in the area of boating safety. Assess the following options with outside groups, for example, the insurance industry and law enforcement, for the collection of data:
 - All boating statistics from all sources to be filed with a new Department of Boating and Waterways clearinghouse.
 - Require that accident reports required for insurance claims be filed with the Department of Boating and Waterways.
 - Require boating officers to assist in all accident reporting.
 - Require law enforcement agencies to collect and send boating accident reports to the Department of Boating and Waterways.
 - Require hospitals and rentals to notify law enforcement of boating accidents.
 - Include documented boats in registration data.

Refine and simplify data collection. Enlist public cooperation and include public input. Prepare public service announcements explaining why we need to collect data.

COMMITTEE MEMBERSHIP

Department of Boating and Waterways Commission Members

Alfred Balitzer

Paul Priolo

Law Enforcement

John Pitzer

California Association of Harbor Masters and Port Captains

Mark Poster

California Boating Safety Officers Association

Barbara Smith

Sacramento County Sheriff's Department

United States Power Squadrons

Art Agnew

Darrell Allison

United States Coast Guard Auxiliary

Betty Oakey

Education Courses

Brian Duglar

California State University, Sacramento Aquatic Center

Boat Dealers/Brokers

Paul Bender

Southern California Marine Association

M'K Veloz

Northern California Marine Association

Don Durant

California Yacht Brokers Association

Boating/Sailing/Yachting Organizations

Skip Breland

Western Boating Safety Group

Dedrick Denison

Recreational Boaters of California

Don Durant

Sail America/U.S. Sailing

Owners/Operators Marinas

Jim Manues

Dana Point Marina Company

Boat Rental

Dave Smith

Marina Recreation Association

Lifeguards/Harbormasters

B. Chris Brewster

San Diego Lifeguard Service

James Stilwell

Moss Landing Harbor District

PWC Organizations

Mark Denny

International Jet Sports Boating Association

Boating Accident Victim

Shawn Alladio

K-38

Other

Dan Flynn

Office of Senator Herschel Rosenthal

Note: The members of the committee were chosen to represent the above areas pursuant to Senate Bill 545, but in fact have expertise in numerous areas of boating safety.

SUMMARY OF MEETING PROCESS

The Committee met three times, assisted by meeting facilitators, to arrive at the recommendations submitted in this report. Following is a summary of each meeting.

Meeting 1

Eighteen members attended the Committee's initial meeting in Sacramento on March 10, 1998. Following a briefing on Department of Boating and Waterways' programs and operations given by the Director, the Committee clarified its mission; adopted ground rules; agreed upon an approach to its work; identified key performance measures to guide Committee activities; and identified the areas where research would need to be conducted. The Committee developed a schedule for future meetings and resolved a variety of logistical issues. Time was allocated for public testimony, but none was given.

The mission of the Task Force is to make recommendations to the Department of Boating and Waterways that will enhance boating safety and education of vessel operators.

Meeting 2

Seventeen members attended the second meeting in Los Angeles on April 2, 1998. Having already reviewed research materials provided by staff, the members brainstormed 45 known problems related to boating safety, which provided a foundation for subsequent recommendations.

Next, twenty potential recommendations were developed. Members then analyzed the "Pro's" and "Con's" of each recommendation, followed by a test for consensus intended to provide an initial sense of agreement/support for each item. Two members of the public gave testimony before the Committee. The Committee made assignments to staff and made plans for the third meeting.

Meeting 3

Seventeen members attended the third meeting in South San Francisco on May 20, 1998. Members had spent considerable time reviewing results of the second meeting and were prepared to revise and finalize their interim recommendations.

Stepping systematically through the initial recommendations, members found a number of opportunities for consolidation and added comments to their analysis.

Where there was disagreement about a particular recommendation, members sought compromise language that still maintained the integrity of the initial recommendation. When the language of the recommendation was considered complete, members cast their final vote on each item. Rather than utilizing a simple yes or no, members elected to cast their vote within a *range* for each recommendation by a show of hands. Vote counts for each recommendation are shown in the appendix of this document. The choices for voting range were: Strongly Support, Support, Slightly Support, Neutral (abstain), Slightly Oppose, Oppose, and Strongly Oppose.

The Committee identified the characteristics for this final report, made assignments to staff, and scheduled an optional fourth meeting to review the final draft of this report.

A Draft of the final report was mailed to Committee members for review. The committee elected to hold a fourth meeting to make final changes to the report.

Meeting 4

Fourteen members attended the fourth meeting in Sacramento on June 15, 1998. Members had previously read the final draft and came prepared to make final changes. Final changes were made and the report was given to Department staff to finalize.

One Committee member, Dedrick Denison, representing the Recreational Boaters of California read a letter from his organization to the Committee and is included in the appendix of this document.

EXERPTS FROM SENATE BILL 545—CHAPTER 747

658.6. (a) *The department, by October 1, 1998 shall report to the Legislature on its recommendations for enhancement and expansion of boating safety and education. The recommendations shall consider the findings and data in the department's annual California Boating Accident Report and shall focus on strategies to improve vessel-operator knowledge and boating safety. The department's study shall include, but not be limited to, an examination of both voluntary and mandatory education.*

(b) *In preparing the report required by subdivision (a), the director, by February 1, 1998 shall appoint a Boating Safety Advisory Committee which shall include, but not be limited to representatives of the Boating and Waterways Commission; boating law enforcement agencies; the United States Power Squadron; the United States Coast Guard Auxiliary; entities that provide boating education courses; personal watercraft organizations; boat dealers and yacht brokers; boating, sailing, and yachting organizations; owners and operators of public and private marina facilities; boat rental operators; lifeguards and harbormasters; and boating accident victims. The committee shall meet and present recommendations to the department by July 1, 1998. The members of the committee shall serve without compensation and shall not be reimbursed by the state for expenses. The department shall assist the committee in carrying out its duties.*

APPENDIX

Seventeen Recommendations with final committee votes, comments and minority opinions and excerpts from Senate Bill 545—Chapter 747

EDUCATION

1. As soon as possible, the State of California should require mandatory education for all personal watercraft (PWC) operators. (Note: There was strong support for this recommendation among Committee members, and no opposition.)

Comments

This recommendation stands alone.

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
12	3	1	1			

2. Within five years, the State of California should require all operators of vessels over fifteen horsepower to hold either a certificate from a course approved by the National Association of State Boating Law Administrators, or an equivalent or higher certification. Features of this mandatory education should include reciprocity with jurisdictions outside California, applicability to all waters within the State, and standard exemptions as found in section 658.5 of the Harbors and Navigation Code.

Comments

A minority of Committee Members felt that voluntary education is effective; education introduces the danger of boaters feeling over-qualified.

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
12	2	1			1	1

¹Minority Opinion: Two Committee members opposed this recommendation stating that voluntary education is effective, and that mandatory education introduces the danger of boaters feeling over-qualified.

EDUCATION (Continued)

3. If mandatory education is adopted, the Department should be authorized to approve alternative type and site specific programs for rental boat operators.

Comments

If mandatory education is adopted, then this will be a subset of that recommendation. Allow industry operators to develop type and location-specific courses and submit to DBW for approval.

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
15			1	1		

²Minority Opinion: One member opposed this recommendation believing that it may not cover all actual operators, such as family members; it creates logistical problems on busy weekends; there would be questionable reciprocity with other states; it imposes a lower standard than for owners; and it may discourage renters.

4. The Department of Boating and Waterways should act as a clearinghouse for boater education programs provided by both public and private agencies.

Comments

This would include ALL courses, whether NASBLA-approved or not—indicate that this is NOT necessarily an endorsement. The intent is to communicate with and inform the public

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
16	1					

EDUCATION (Continued)

5. **The Department should incorporate environmental components into existing and future educational programs.**

Comments

This is a NEW recommendation. Ties to health and safety. Explore connection to the California Clean Boating Network (a coalition of groups working through the Coastal Commission). Already part of the United States Coast Guard Auxiliary, the United States Power Squadrons and other programs

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
12	5					

6. **The Department of Boating and Waterways should encourage and support the provision of premium discounts by insurance companies to boaters for successful completion of boating safety courses.**

Comments

none

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
16	1					

EQUIPMENT

7. The State of California should amend Section 658.3(a) of the Harbors and Navigation Code to read "No person shall operate a motorboat, sailboat, or vessel that is 26 feet or less in length unless every person on board who is under twelve years of age is wearing a Type I, II, or III Coast Guard approved personal flotation device while that motorboat, sailboat, or vessel is underway."

Comments

Age changed to be consistent with other age-specific boating laws.

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
14	2	1				

8. The State of California should add a new Harbors and Navigation Code section: "All persons aboard personal watercraft and persons being towed behind a vessel on water skis, aquaplane, or similar device shall wear a personal flotation device except during special events referenced in section 658.5(c) of the Harbors and Navigation Code."

Comments

See NTSB recommendations. Refer to Section 658 language.

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
12	3	1	1			

LAW ENFORCEMENT

9. The State of California should develop a program for mandatory education of the boating law enforcement community. At a minimum, all boating law enforcement officers should be required to complete the *Boating Safety and Enforcement-Basic* class.

Comments

none

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
16	1					

10. The Department of Boating and Waterways should develop a statewide program to educate the Judiciary regarding the need to impose consistent sanctions for violations. This education should stress the need for "Across The Board" fines and/or additional educational requirements for violators.

Comments

none

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
16	1					

LAW ENFORCEMENT (continued)

11. The State of California should support increased enforcement in problem areas, times, days, and seasons by providing grant incentives to local jurisdictions.

Comments

none

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
13	3	1				

12. The State of California should require mandatory education for boating moving violations.

Comments

Refer to the appropriate code section.

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
14		3				

LAW ENFORCEMENT (continued)

13. The Department of Boating and Waterways should study a method for tracking boating convictions. (For example, sending reports of violations to the Department of Motor Vehicles, so that fines and points could be assessed.)

Comments

none

Final Vote

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
10	4	2			1	

³Minority opinion: One member opposed this recommendation stating that cause and effect would be skewed; this approach would not work without licensing; the penalty doesn't apply to the crime; DMV would lobby against it; and it would put more unlicensed drivers on the road)

STATISTICS AND INFORMATION

14. The Department of Boating and Waterways should increase existing and develop new mass media campaigns to highlight and promote the Department of Boating and Waterways programs and boating safety to the public by targeting trade associations and boating clubs, enthusiast publications, boat shows and other appropriate audiences.

Comments

none

Final Vote*

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
15		1				

STATISTICS AND INFORMATION (Continued)

15. The Department of Boating and Waterways should conduct a California Recreational Boating Survey; similar to Red Cross's National Boating Survey, including both registered and documented vessels.

Comments

none

Final Vote*

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
13	2					

16. The Department of Boating and Waterways should conduct ongoing evaluations to measure the effectiveness of its programs.

Comments

none

Final Vote*

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
13	2					

STATISTICS AND INFORMATION (Continued)

17. The State of California should improve data collection in the area of boating safety. Assess the following options with outside groups, for example, the insurance industry and law enforcement, for the collection of data:

- All boating statistics from all sources to be filed with a new Department of Boating and Waterways clearinghouse.
- Require that accident reports required for insurance claims be filed with the Department of Boating and Waterways
- Require boating officers to assist in all accident reporting.
- Law enforcement should collect and send boating accident reports to the Department of Boating and Waterways
- Require hospitals and rentals to notify law enforcement of boating accidents.
- Include documented boats in registration data.

Refine and simplify data collection. Enlist the public's cooperation and include public input. Prepare public service announcements explaining why we need to collect data.

Comments

none

Final Vote*

Strongly Support	Support	Slightly Support	Neutral	Slightly Oppose	Oppose	Strongly Oppose
12	3					

* Recommendations 14-17 register fewer than 17 votes due to the fact that some members were absent during the voting process.

Appendix B

Mandatory Education – Survey of States

	Mandatory Education	Age Limits	Vessel Type	Certificate Issued	Revoke or Suspend Certificate	Rental Requirement	Type of Exam
Alabama	Yes	12 & over, except for persons 40 years of age before 4/28/94	Motorized Vessel	Yes	Yes	Must provide instruction for operator	Non-proctored
Alaska	No	—	—	—	—	N/A	N/A
Arizona	No	—	—	Yes*	—	None	Proctored*
Arkansas	Yes	Persons born after 1/1/86	10hp & up	Yes	No	Same	Proctored
California	No	—	—	For Home Study*	No	No	Both proctored and non-proctored*
Colorado	Yes	14-16 years	All Motorboats	Yes	No	May not rent to persons 14-16 years without boating safety certificate	Proctored
Connecticut	Yes	All Ages	All motorboats; sailboats 19.5"+	Yes	No	No certificate if rented for 14 days or less; must have rental papers aboard	Proctored
Delaware	Yes	Those born on or after 1/1/78	All motorboats	Yes	Yes	Must have driver's license to rent PWC; given instruction where to operate; chart, maps, booklet on operation	Proctored
Dist. of Columbia	Yes	13 years & older	All recreational watercraft	Yes	No	Must complete boating course	Proctored

* Voluntary education program.
N/A Information not available.

Appendix B

Mandatory Education – Survey of States

	Mandatory Education	Age Limits	Vessel Type	Certificate Issued	Revoke or Suspend Certificate	Rental Requirement	Type of Exam
Florida	Yes	Persons born after 9/30/80, 21 or younger w/ staggered effective date	Over 10hp	Yes	No	Must provide person renting a PWC with the basics	Both proctored & non-proctored
Georgia	Yes	12-15 years	PWC	Yes	Yes	No PWC rental to persons under 16	Proctored
Guam	No	—	—	—	—	Vender must have permit and insurance; must have safety supervisor on course for constant supervision	N/A
Hawaii	No	—	—	—	—	N/A	Non-proctored*
Idaho	Yes	All	Rental PWC	Yes	No	Video & info before renting PWC	Both proctored & non-proctored
Illinois	Yes	10-17	Motorized boats	Yes	No	May not be rented to or used by those under 12	Proctored
Indiana	No	—	—	Yes*	Yes	None	Proctored*
Iowa	No	—	—	—	—	N/A	N/A
Kentucky	Yes	12-17 as of 6/1/99	Over 10hp	Yes	N/A	Not regulated	Proctored
Louisiana	No ¹	—	—	Yes	N/A	PWC's may not be rented or used by those under 13	Proctored

¹ Louisiana requires students in public high schools to complete a boating education course.

* Voluntary education program.

N/A Information not available.

Appendix B

Mandatory Education – Survey of States

	Mandatory Education	Age Limits	Vessel Type	Certificate Issued	Revoke or Suspend Certificate	Rental Requirement	Type of Exam
Maine	No	—	—	—	—	None	N/A
Maryland	Yes	Persons born on or after 7/1/72	Motorized vessels	No	No	Renters exempt from safety certificate requirements if vendor has agreement to issue temporary certificate after providing renter with safety material to read	Proctored
Massachusetts	Yes	PWC 16-17; motorboats 12-15	See age limits	Yes	No	PWC renters issued PWC regs pamphlet; safety decal on rental PWC	Proctored
Michigan	Yes	12-16	All motorboats	Yes	No	PWC not rented to those under 16	Classroom proctored exam
Minnesota	Yes	Ages 12-17 over 25 hp must have permit or someone over 21 on board	Motorboats; PWC min. age is 13	Yes	Yes	Same	Non-proctored
Mississippi	Yes	Persons born after 6/30/80	Motorized vessels	Yes	No	None; they are exempt	Proctored for classroom & correspondence course
Missouri	No	—	—	—	—	Open records for water patrol investigations	Proctored*
Montana	Yes	13-14 year olds can operate if they have certification	All motorized	Yes	No	No	Non-proctored

* Voluntary education program.
N/A Information not available.

Appendix B

Mandatory Education – Survey of States

	Mandatory Education	Age Limits	Vessel Type	Certificate Issued	Revoke or Suspend Certificate	Rental Requirement	Type of Exam
Nebraska	No	—	—	Yes*	No	Must retain renter information	8 hr. class -- proctored. Home study -- non-proctored*
Nevada	No	—	—	—	—	Rental contract requires operator to receive instruction on safe use and legal requirements	Non-proctored*
New Hampshire	No, except for certain violations	—	—	—	—	PWC only	Proctored
New Jersey	Yes	All PWC operators & those born in 1979 or later	All motorized	Yes	Yes	Short course for PWC operators; operate in restricted area under supervision	Proctored
New Mexico	No	—	—	—	—	None	Proctored for classroom*
New York	Yes	10 to 18th birthday	All powerboats	Yes	Yes	Must rent with required safety equipment; cannot exceed capacity hp	Proctored
North Carolina	No	—	—	Yes*	No	No education requirement	Proctored*
North Dakota	Yes	12-15	Motorboats over 10hp	Yes	No	Capacity must be visible	Non-proctored
Ohio	No	—	—	Yes*	No	Must provide federal and state-required equipment	Proctored*
Oklahoma	No	—	—	—	—	Set by rental operators for persons renting vessels	Proctored*
Oregon	No	—	—	—	—	None	N/A

* Voluntary education program.
N/A Information not available.

Appendix B

Mandatory Education – Survey of States

	Mandatory Education	Age Limits	Vessel Type	Certificate Issued	Revoke or Suspend Certificate	Rental Requirement	Type of Exam
Pennsylvania	Yes	12-15	PWC & boats over 10hp	Yes	No	Must go over legal requirements, local hazards; post decal; renter sign affidavit. PWC must see film	Proctored
Puerto Rico	Yes	persons born after 7/1/72	All recreational & some commercial vessels	Yes	Yes	Must orient boaters; require proof of age	Proctored
Rhode Island	Yes	Under 16	PWC use only	Yes	No	Must not rent to those under 16	Proctored for certification
South Carolina	Yes	Persons under 16	All vessels 15hp or larger	Yes	No	Same	Proctored
South Dakota	No	—	—	—	—	None	Both proctored, non-proctored*
Tennessee	No	—	—	NASBLA courses only*	—	Required orientation for rental PWC users	Both proctored and non-proctored*
Texas	Yes	Persons born after 9/1/84 & persons currently 13-15	PWC, motorboats over 10hp, sailboats over 14'	Yes	No	Liability insurance, instructions on law; operational characteristics of PWC; provide local regs. keep records for 6 mos.	Proctored except for home study
Utah	Yes	12-17	PWC	Yes	No	Same	Proctored; combination home study with class & test
Vermont	Yes	Persons born on or after 1/1/74	All powerboats	Yes	Right to operate may be suspended	Same	Proctored; internet course exam is also proctored

* Voluntary education program.
N/A Information not available.

Appendix B

Mandatory Education – Survey of States

	Mandatory Education	Age Limits	Vessel Type	Certificate Issued	Revoke or Suspend Certificate	Rental Requirement	Type of Exam
Virgin Islands	No	—	—	—	—	None	Proctored*
Washington	No	—	—	—	—	None	N/A
West Virginia	No	—	—	—	—	None	N/A
Wisconsin	Yes	12-15 if operating alone or whenever operating a PWC	All motorized vessels	Yes	Yes	Must provide renters with equipment to make boat legal. For PWC must give prescribed education course to renter & affix sticker with rules	Proctored
Wyoming	No	—	—	—	—	None	Non-proctored*

This survey was compiled primarily from the April/May 1998 edition of the *Small Craft Advisory*, a periodical published by the National Association of Boating Law Administrators, and a telephone survey of some states by the Department.

* Voluntary education program.
N/A Information not available.

Appendix C

The information contained in the following documents was used in the preparation of this report. Copies of these documents may be obtained from the Department or by writing or calling the sponsoring organizations.

Boating Safety Report, California Department of Boating and Waterways, 1998. Contact: California Department of Boating and Waterways, Boating Accident Unit, Amy Rigby (916) 263-8190.

California Boating Law, California Department of Boating and Waterway, 1998. Contact: California Department of Boating and Waterways, Public Information Unit, (916) 445-2615.

Minimum Standards for Boating Safety Education, National Association of State Boating Law Administrators, 1996. Contact: National Association of State Boating Law Administrators, P.O. Box 11099, Lexington, KY, 40512. (606) 225-9487.

Model Personal Watercraft Operations Act, Personal Watercraft Industry Association, 1998. Contact: Personal Watercraft Industry Association, 1819 L Street, N.W., Suite 700, Washington, D.C., 20036. (202) 861-1180.

National Boating Survey—A Study of Recreational Boats, Boaters, and Accidents in the United States, American Red Cross, 1991. Contact: American Red Cross Public Inquiry Office, 6th Floor, 8111 Gatehouse Road, Falls Church, VA 22042 (703) 206-7090. (*Limited Quantity Available from the Department*)

Safety Study--Recreational Boating Safety, National Transportation Safety Board, 1993. Contact: National Transportation Safety Board, Public Inquiries Section, RE-51, 490 L'Enfant Plaza, S.W., Washington, D.C. 20594, (202) 314-6551.

Safety Study--Personal Watercraft Safety, National Transportation Safety Board, 1998. Contact: National Transportation Safety Board, Public Inquiries Section, RE-51, 490 L'Enfant Plaza, S.W., Washington, D.C. 20594, (202) 314-6551.

Why Mandatory Wear Legislation for Children Twelve Years and Under is Needed, Susan Balistreri, Balistreri Consulting Inc. Contact: Susan Balistreri, 5713 23rd Street, Zephyrhills, FL, 33540. (813) 783-2976.

